Frank Discovers ...IT

by Frank Start - VE3AJ As published in March 1976 High-Q, Bill Unger - VE3EFC and Phil Moorey - VE3AXL Co-editors.

An awful long time ago before Megahertz and SSB and all that stuff, I came ashore, swallowed the anchor, and lived in the concrete jungles of Toronto for ten years. Actually one should have been enough. But, eventually we did get away and moved to Thunder Bay (despite the fact that the majority of tax payers voted for it to become Lakehead). The first QTH was a two story igloo on a muddy street leading into the north called Algoma Street. This was in time, paved and became a racetrack for dog teams and other traffic which caused so much QRM that we could not sleep at night.

One day I was on the roof working on a ten metre beam when the ladder blew down, leaving me stranded on a cold and windy day. Search and Rescue had not yet been organized and in those days the only walkie-talkie I owned was washing dishes in the kitchen. So I was not rescued for hours and hours. This was the last straw and when I got back to Terra-Firma, I had decided to find a new QTH. Where there was room for an antenna farm and a house with a flat roof. Soon I was to gather up my crystal set and my Ford spark coil transmitter and incidentally the XYL and all the little harmonics and associated gear and headed west to the banks of the McIntyre River, to the present QTH.

In due course we acquired a tower and a three element beam and it was then we discovered ...IT. Little if any scientific research had taken place in or around the McIntyre River Valley. We might still be ignorant of some strange phenomena in the upper atmosphere had it not been for a Ham searching for bigger and better things, especially DX. The tower was a thing of beauty and joy for ever (and still is) reaching into the clouds. The beam rotated smoothly like the flywheel of a sewing machine, despite a slight droop to starboard. Never had there been anything as high in the country before except the neighbours at New Year. Then one day in the fall we really became aware of ...IT. Strong winds in the upper atmosphere commenced sweeping down the valley. It caught the beam and the torque built up rapidly. The breaks held but not for long. They screamed under the strain and then the beam started to turn. It happened to be wash day and at that moment the XYL appeared on the scene to hang out the clothes. She looked up and said, "That would be a good place to hang them on". On the beam elements, no less. So I said, "If we had a ladder, I could hold it at the bottom and she could go up". But we didn't have a fifty foot step ladder. Then I had a better idea. ...IT.

With the transmitter going full blast, I would have a super-duper signal squirter, a scatter propagator (junior size). Signals going out in all directions and I would pick out the best DX. But wait. Another flash of brilliance. Now it was the beam turning the rotator and it is well known that a motor will generate when the armature is turned by some mechanical means. I raced into the shack, grabbed my slide-rule and a copy of Norries Tables then into the garage for a tachometer. In no time at all I had the RPMs of the shaft. A quick calculation involved the reversal of two 36-to-1 reduction gears, the number of poles, friction losses, etc. and came up with a generated frequency. Right on the nose... 58.96 cycles approximately, plus or minus 7.3

bicycles. Probably as close as Hydro make it. Another quick dash to the junk box, unearthed 50 feet of cab tyre cable. The beam rotator motors were now generating beautifully. I cut off the Hydro power to the house and hooked up the house to the beam and presto... THE APPLE JACK POWER UNLIMITED!